

CLAIMS

1. An electrostatically water atomizing device comprising:
 - a tank holding a volume of water;
 - a capillary carrier configured to have a water collecting end and an emitter end opposite of said water collecting end, said water collecting end collecting the water for feeding it through said carrier to said emitter end,
 - a first electrode electrically charging said water at said emitter end,
 - a second electrode opposed to said emitter end,
 - said first electrode and said second electrode being configured to be connected to a voltage source, said voltage source applying a voltage across said first and second electrodes to thereby electrostatically charge the water at said emitter end and emit the said water in the form of tiny ionized particles;
 - said device including a cation exchanger configured to remove mineral ions from said water.
2. The electrostatically liquid atomizing device as set forth in claim 1, wherein said capillary carrier is made of a cation exchange material to define itself said cation exchanger.
3. The electrostatically liquid atomizing device as set forth in claim 1, wherein said cation exchanger is fitted around said capillary carrier at a portion upstream of said emitter end.

4. The electrostatically liquid atomizing device as set forth in claim 1, including an auxiliary vessel which is attached to said tank and is configured to contain said cation exchanger in contact with said water.

5. The electrostatically liquid atomizing device as set forth in claim 4, wherein said cation exchanger comprises a plurality of granules made of a cation exchange material.

6. The electrostatically liquid atomizing device as set forth in claim 4, wherein said cation exchanger comprises a stack of plural sheets made of a cation exchange material.

7. The electrostatically liquid atomizing device as set forth in claim 4, wherein said cation exchanger is a spiral sheet made of a cation exchange material.